

Release Techniques for Marine Fishes¹

Rich Novak²



Figure 1. *Controlled studies have shown that survival of marine fishes released after hook and line capture is high, validating catch and release as a marine conservation tool.*

Proper release of marine fishes has become increasingly important to anglers. The use of fisheries management tools such as size limits, bag limits and closed seasons as well as stronger conservation ethics have resulted in more and more fish being released. In order to maintain healthy fish populations, each

angler is responsible for fishing legally, carefully handling fish that are hooked and releasing fish that are not harvested so they can spawn or perhaps be caught again.

Techniques to Increase Survival of Released Fish



Figure 2. *It is the responsibility of every angler to strive for 100 % survival of fish that are released.*

- Use appropriate tackle and bring the fish in quickly to reduce exhaustion. Using tackle that is too light and playing the fish to exhaustion depletes the fish's energy reserves and can cause mortality. It also puts the fish at risk of predation.

1. This document is SGEF-121 published by the Florida Sea Grant College Program with support from the National Oceanic and Atmospheric Administration, Office of Sea Grant, U.S. Department of Commerce. Published July 2000. Revised June 2007. For more information contact Florida Sea Grant, PO Box 110400, Gainesville, FL 32611-0400, 352-392-5870.

2. Rich Novak was one of Florida's foremost advocates of effective angler involvement in sustainable fisheries. He served as the Florida Sea Grant marine agent in Charlotte County from 1997 until his untimely death in 2004. Inquiries regarding this publication may be directed to the Florida Sea Grant College Program, PO Box 110409, Gainesville, FL, 32611-0409, (352) 392-2801. Additional printed copies are also available by contacting Florida Sea Grant.

- Use circle hooks when fishing with live or dead bait. Fish tend to swallow these baits more often than artificial lures. Circle hooks seldom gut hook a fish and usually hook fish in the jaw, making it easier to release a healthy fish. Fish also stay hooked better with circle hooks allowing you to catch more. Make sure that the point of the hook is aligned with the shank. Circle hooks with offset points have a higher chance of gut hooking the fish.
- Use artificial baits to reduce the likelihood of fish swallowing the bait and becoming gut hooked.
- Bend down the barbs on artificial baits that have treble hooks to cause less damage to fish when releasing them.
- Plan ahead and be prepared to release a fish before it is hooked.
- Know the best way to handle the fish species you are targeting and have release equipment ready. Using release tools is safer for the fish and for you. There are many devices for removing hooks from fish. Commercial dehookers, forceps and needle-nose pliers can be found in most tackle shops.
- If you can't see the hook, cut the leader as close to the hook as possible without removing the fish from the water.

Handling and Releasing the Fish

- Leaving the fish in the water during release is best, but not always practical. Never boat large fish, take pictures of them in the water. They are dangerous to the boat crew and may harm themselves.
- Minimize stress on a fish when handling it out of the water. Handle it as little as possible and release it as quickly as possible.
- Avoid removing the fish's slime, which protects it from bacterial infection. Only touch the fish with wet hands. The use of release tools makes touching the fish unnecessary.



Figure 3. Lift up on the dehooker and pull down on the line at the same time to release a fish without touching it.

- Release fish gently head first into the water. A fish that has been stressed by the fight or handling should be revived by moving it forward in the water to promote water flow over the gills. A large fish can be revived by towing it slowly with the boat, but make sure the fish's head is totally submerged.
- Use good judgment if you decide to take a fish. Never gaff a fish until you are sure it is a legal size and species (i.e. not closed season). This information is available to the public in the FFWCC "Florida Recreational Saltwater Fishing Regulations." You can get a copy of this biannual publication from your local tax collector's office.

Reef Fish

Releasing reef fish may require special handling to decrease mortality. When reef fish are brought quickly to the surface from water more than 70 feet deep, the gases in their swim bladder expand, often rupturing the swim bladder.



Figure 4. *A fish is too valuable to catch only once!*

A sign of this condition is visible to anglers when the stomach of a fish is pushed out the mouth. Researchers at Mote Marine Laboratory have found that ruptured swim bladders of snappers and groupers become functional within four days after the release and heal within two weeks.



Figure 5. *Note the everted stomach visible in the mouth of this red grouper.*

Venting may increase the survival rate of reef fish that are released. Proper use of a venting tool can improve the fish's chances of survival by allowing it to return to the bottom quickly.

A venting tool can be any hollow, sharpened instrument that allows gases to escape. Ice picks and knives are not suitable because simply puncturing the fish can result in a mortal injury.

Once it has been determined that a fish needs venting, hold the fish gently but firmly on its side and insert a venting tool or large-gauge at a 45-degree angle at the base of the pectoral fin. Only insert the needle far enough to release the trapped gas. A deep puncture can harm the internal organs. The sound of the escaping gas is audible and deflation is noticeable. If a fish is extremely bloated use a free hand to exert gentle pressure to the fish's abdomen to aid deflation.

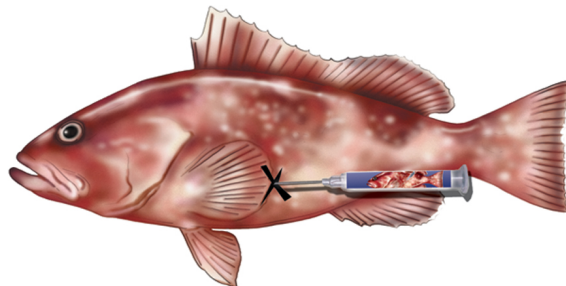


Figure 6. *Insert a venting tool at a 45 degree angle at the base of the pectoral fin.*

Venting tools and instructions are available from the Florida Sea Grant Extension Program at:

Marine Extension Agent

Charlotte County

25550 Harbor View Road, Unit 3

Port Charlotte, FL 33980

941-764-4340

Marine Extension Agent

Manatee County

1303 17th Street West

Palmetto, FL 34221-5998

941-722-4524

For More Information

For more information on release techniques for marine fishes contact:

Division of Marine Fisheries

Outreach and Education Program

2590 Executive Center Drive, Suite 204

Tallahassee, FL 32301